# District 07
# Mobility Performance Report

2024 First Quarter

**DEPARTMENT OF TRANSPORTATION**
**OFFICE OF SYSTEM PERFORMANCE**
**DIVISION OF OPERATIONS**

April 19, 2024

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2024 First Quarter

## EXECUTIVE SUMMARY

### Overview

Caltrans District 7, consisting of Los Angeles and Ventura counties, is part of the second-largest urban region in the United States. Los Angeles County is the most populous county in the United States with more than 10.2 million residents as of 2020. Ventura County has a population of 0.84 million.

The Quarterly Mobility Performance Report (MPR) compares information with over a year ago and over previous quarter in the following performance measures:

- Vehicle Miles of Travel (VMT)
- Vehicle Hours of Delay (VHD) and Bottleneck Locations
- Lost Lane Miles Hours (equivalent lost productivity)
- Detection Health

This information is based on daily data collected, 24 hours a day, by automated vehicle detector stations deployed along the State Highway System. The Mobility Performance Report presents congestion information at two speed thresholds: delay from vehicles traveling below 60 miles per hour (mph), and delay from vehicles traveling below 35 mph. The delay at the 35 mph speed threshold represents severe congestion while delay at 60 mph speed threshold represents both light and heavy congestions. These two speed thresholds are set by Caltrans based on engineering judgement.

## FINDINGS

- In this first quarter (January to March of 2024), Vehicle miles of Travel (VMT) across all district 7 freeways were 8.86 billion miles, a slight increase of 0.7 percent from previous quarter.
- There was 23.6 million Vehicle Hours of Delay (VHD) at the 60-mph speed threshold, again a slight increase of 0.7 percent over previous quarter and a decrease of 5.8 percent from a year ago.
- Only 2.4 percent of the 23.58 million VHD were generated in Ventura County, and 97.6 percent were generated in Los Angeles County.
- About 48 percent of the total delay in District 7 at the 35-mph speed threshold were generated from 3 freeways only, I-405 (22%), I-10 (14%), and I-5 (12%).
- These delays were equivalent to 301 Lost Lane Miles Hours (LLM)* from the freeway network during the PM Peak Period, compared to 311 LLM from previous quarter.
- The average weekday daily delay in this quarter was approximately 129,000 VHD at 35-mph speed threshold, and 324,000 VHD at 60-mph speed thresholds (0.8 percent and 2.3 Percent increase respectively over the previous quarter.)
- Thursdays are the most congested days of the week in this quarter then Fridays. Morning peak hour was at 8:00 AM. Afternoon peak hour was at 5:00 PM. The peak periods extended from 7:00 AM to 9:00 AM and from 3:00 PM to 6:00 PM.
- Weekend's peak hour (Saturday and Sunday) was at 3:00 PM, and peak period extended between 1:00 PM and 5:00 PM.

* **Lost Lane Miles Hours (Lost Productivity):** This is the number of lane-mile-hours that are lost due to the freeway operating under congested conditions. When the freeway is in congestion - speed is below 35 mph - PeMS find the ratio between the measured flow and the capacity for this location. This drop in capacity is due to the fact that the freeway is operating in congested conditions instead of in free flow)

- By the end of the first quarter, loop detectors in good service condition account for only 29.4 percent of the total loops, while 70.6 percent of total loop detectors are nonoperational. Almost 3.8 percent of the total loops were out due to construction projects.

| County | # Det | % Good | % Bad | % Construction |
|---|---|---|---|---|
| Los Angeles | 10595 | 28.1 | 71.9 | 2.2 |
| Ventura | 616 | 51.9 | 48.1 | 23.7 |
| **Totals** | **11,211** | **29.4** | **70.6** | **3.4** |

- Top Ten Bottlenecks for the 2024 First Quarter:

| Rank | County | Location | Shift | Fwy | Abs PM | CA PM | Latitude | Longitude | # Days Active | Avg Extent (Miles) | Total Delay (veh-hrs) | Total Duration (hours) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Los Angeles | Solano Ave | PM | I110-N | 25.01 | 25.08 | 34.075092 | -118.232059 | 62 | 3.7 | 203,259 | 299 |
| 2 | Los Angeles | Firestone Blvd | PM | I605-S | 10.39 | R8.34 | 33.923989 | -118.104406 | 62 | 6.6 | 184,020 | 248 |
| 3 | Los Angeles | Howard Hughes Pkwy | PM | I405-S | 48.67 | 24.9 | 33.976541 | -118.387273 | 54 | 4.9 | 168,729 | 160 |
| 4 | Los Angeles | Paramount Blvd | PM | SR60-E | 7.91 | R7.74 | 34.035853 | -118.093489 | 57 | 5.2 | 158,120 | 210 |
| 5 | Los Angeles | Adams Blvd | AM | I110-N | 20.53 | 20.6 | 34.026085 | -118.275163 | 62 | 4.2 | 154,598 | 223 |
| 6 | Los Angeles | Bel Air Crest Rd | AM | I405-S | 59.57 | 35.8 | 34.110424 | -118.481702 | 61 | 4.6 | 151,625 | 208 |
| 7 | Los Angeles | Garfield Ave | PM | I5-S | 127.33 | 10.76 | 33.986224 | -118.136014 | 61 | 2.9 | 146,143 | 269 |
| 8 | Los Angeles | Downey Rd | PM | I5-S | 130.91 | 14.34 | 34.019879 | -118.181588 | 62 | 2.1 | 143,455 | 300 |
| 9 | Los Angeles | National Blvd | AM | I405-N | 52.93 | 29.16 | 34.026728 | -118.429807 | 46 | 5.8 | 143,326 | 166 |
| 10 | Los Angeles | Pasadena Ave | PM | I5-N | 136.63 | 20 | 34.076978 | -118.219273 | 62 | 3.1 | 142,401 | 243 |

## Project Status:

The following projects are currently being constructed or are scheduled for construction in District 7. These projects are expected to relieve traffic congestion in Los Angeles and Ventura counties.

**LA I-405: EA 34070, LA CIENEGA BLVD SOUTHBOUND ON AND OFF-RAMPS IMPROVEMENTS.**

This project widens the southbound I-405 La Cienega Blvd exit ramp from one to two lanes, from the diverge point on, and then widens to four lanes at the ramp terminal intersection. The entrance ramp from La Cienega Blvd will be widened from one lane to two lanes up through the ramp meter line and then taper to one lane to join the existing collector-distributor road just before the Century Blvd UC.

**LA SR-57: EA 27912, IN LOS ANGELES COUNTY, IN DIAMOND BAR AND CITY OF INDUSTRY ON ROUTE 60 FROM E60-S57 CONNECTOR OC TO GOLDEN SPRINGS DRIVE UC.**

This project will reconstruct Grand Ave OC, and NB SR-57 Connector to EB SR-60. This project will also construct EB SR-60 Bypass Off-Ramp to Grand Ave, EB SR-60 Bypass, and construct SB Grand Ave To EB SR-60 Loop On-Ramp.

**LA I-405: EA 29360, IN TORRANCE. INTERCHANGE IMPROVEMENTS AND NEW AUX LN.**

This project will improve Interstate 405 (I-405) @ Crenshaw Boulevard & 182nd Street interchange and add auxiliary lanes on I-405 between Western Avenue and Crenshaw Boulevard in Los Angeles County. Improvements include constructing a new southbound on-ramp from northbound Crenshaw Boulevard.

**TRANSPORTATION MANAGEMENT SYSTEM PROJECTS TO UPGRADE THE EXISTING COMMUNICATION SYSTEMS.**

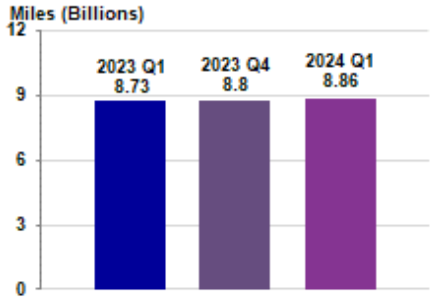
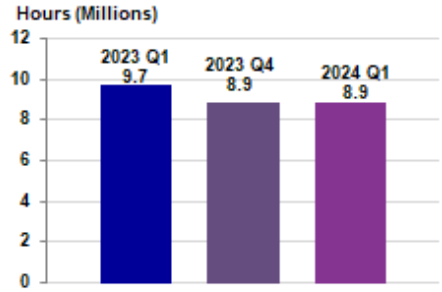
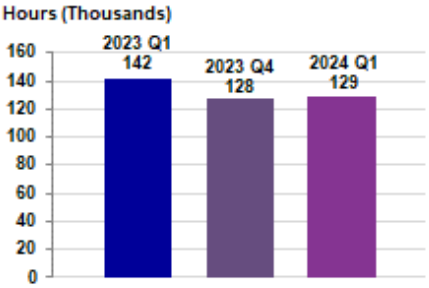
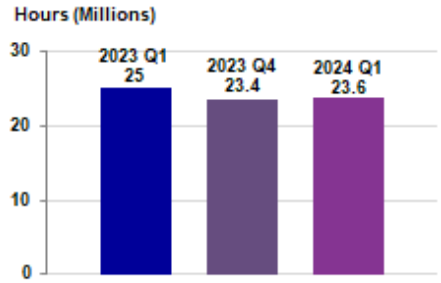
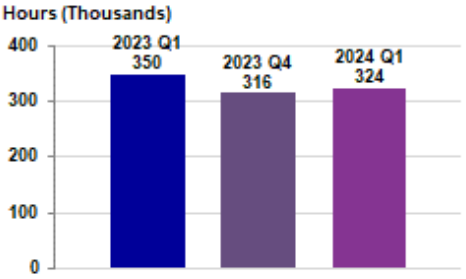
- **LA I-10: EA 32720**, Upgrade the existing transportation management system elements in and near Santa Monica from Lincoln boulevard to McClure tunnel, on Route 10 (PM 2.1/18.3), Route 2 (PM R18.7), Route 101 (PM 11.8), and Route 105 (pm r1.95).
- **LA SR-91: EA 33860,** Upgrade existing traffic management communication in and near Carson from Route 110 to Orange County line, on Route 2 (PM R18.7), Route 5 (PM 6.8), and Route 105 (PM R2.0).
- **LA SR-60: EA 32710,** Upgrade transportation management system.
- **LA US-101: EA 33780**, This project proposes to upgrade the existing Transportation Management System (TMS) elements including Closed-Circuit Television (CCTV) cameras, Changeable Message Signs, Vehicle Detection Stations, Ramp Metering Systems, and Internet Protocol (IP) ready network at various locations in Los Angeles County.

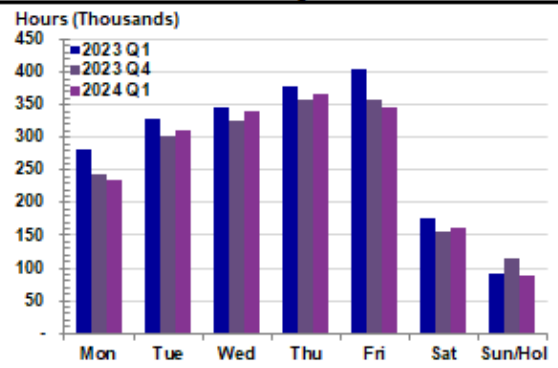
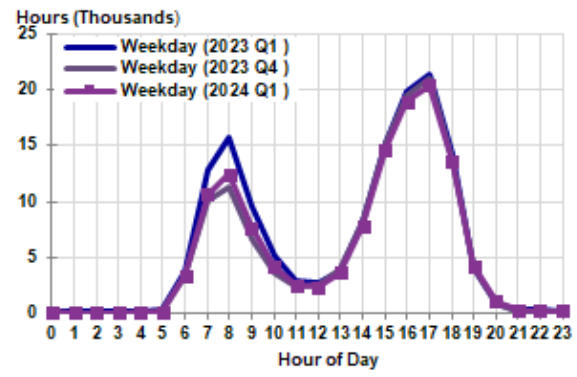
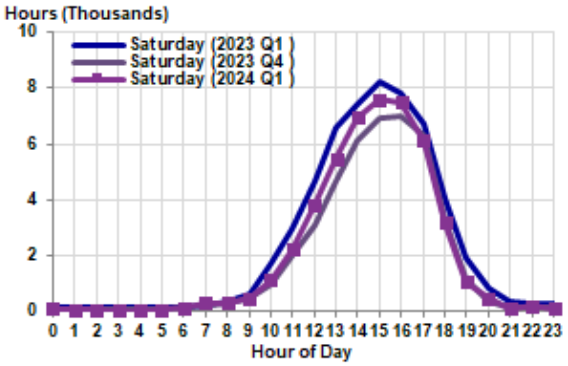
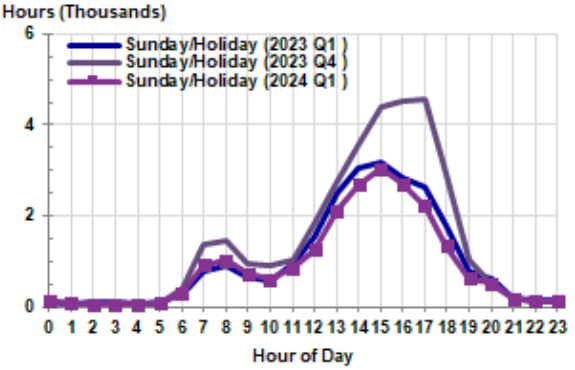
**ROADSIDE SAFETY IMPROVEMENT PROJECTS**

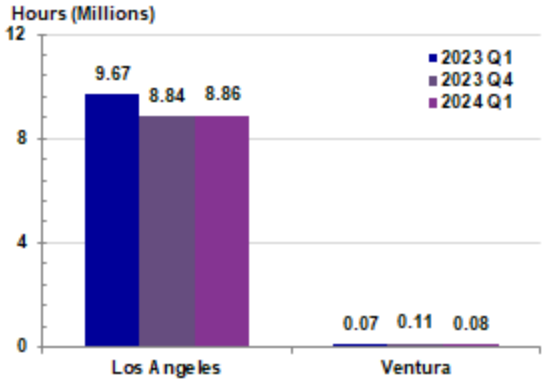
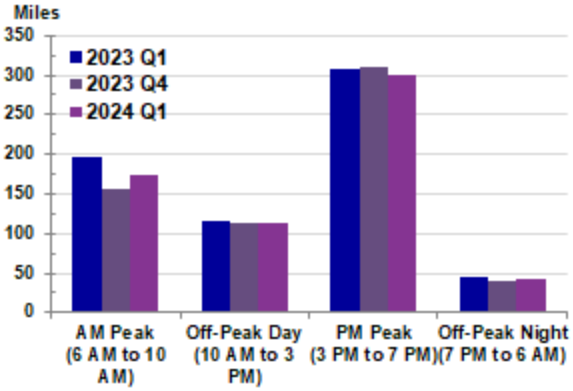
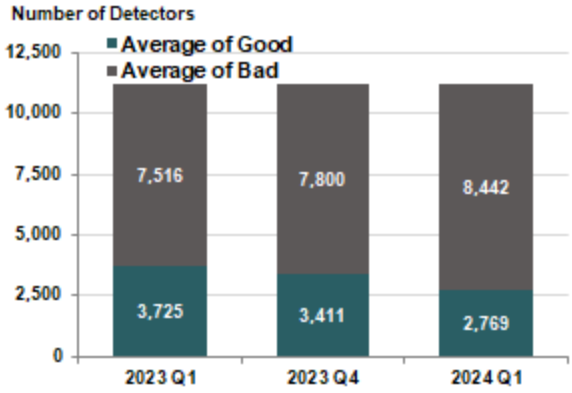
- **LA I-110: EA 31200,** In Los Angeles County at various locations. The project will replace some of the Transportation Management System (TMS) field elements, which includes replacement of the existing copper cables with fiber optic cables along the corridor and at all Closed-Circuit Television Cameras (CCTVs), Ramp Metering Systems (RMS), Vehicle Detection Stations (VDS), and Extinguishable Message Sign (EMS).
- **LA I-405: EA 32180,** in Los Angeles County near Carson and long beach at various locations from 0.1 mile north of route 710 to route 110/405 separation.

This list of ongoing or planned projects is only a partial list, please contact CALTRANS District 7 for more details.

## Quarterly Mobility Statistics

| Measure | Graph | Percentage Change | |
|---|---|---|---|
| | | Over one year ago | Over last quarter |
| **Vehicle Miles of Travel (VMT)** |  | 1.5% | 0.7% |
| **Total Vehicle Hours of Delay (VHD) at 35 mph** |  | -8.3% | -0.1% |
| **Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 35 mph** |  | -9.5% | 0.8% |
| **Total Vehicle Hours of Delay (VHD) at 60 mph** |  | -5.8% | 0.7% |
| **Average Non-Holiday Weekday Vehicle Hours of Delay (VHD) at 60 mph** |  | -7.6% | 2.3% |

| Measure | Graph | Percentage Change | |
|---|---|---|---|
| Average Vehicle Hours of Delay by Day of Week at 60 mph |  | Largest Magnitude Decrease over one year ago<br>Friday -14.8% | Largest Magnitude Decrease over last quarter<br>Sun/Hol -23.5% |
| | | Largest Magnitude Increase over one year ago<br>– | Largest Magnitude Increase over last quarter<br>Wednesday 4.5% |
| Average Vehicle Hours of Delay by Hour of Day at 35 mph, Weekdays |  | Largest Magnitude Weekday Decrease over one year ago<br>8 AM -21.4% | Largest Magnitude Weekday Decrease over last quarter<br>5 PM -3.1% |
| | | Largest Magnitude Weekday Increase over one year ago<br>8 PM 19.4% | Largest Magnitude Weekday Increase over last quarter<br>8 AM 10.1% |
| Average Vehicle Hours of Delay by Hour of Day at 35 mph, Saturdays |  | Largest Magnitude Saturday Decrease over one year ago<br>1 PM -16.9% | Largest Magnitude Saturday Decrease over last quarter<br>5 PM -2.7% |
| | | Largest Magnitude Saturday Increase over one year ago<br>7 AM 22.4% | Largest Magnitude Saturday Increase over last quarter<br>2 PM 14.3% |
| Average Vehicle Hours of Delay by Hour of Day at 35 mph, Sundays/ Holidays |  | Largest Magnitude Sun./Holiday Decrease over one year ago<br>6 PM -25.1% | Largest Magnitude Sun./Holiday Decrease over last quarter<br>5 PM -50.9% |
| | | Largest Magnitude Sun./Holiday Increase over one year ago<br>7 AM 19.8% | Largest Magnitude Sun./Holiday Increase over last quarter<br>8 PM 9.5% |

| Measure | Graph | Percentage Change | |
|---|---|---|---|
| Total Vehicle Hours of Delay (VHD) by County at 35 mph |  | Largest Magnitude Decrease over one year ago<br>Los Angeles -8.4% | Largest Magnitude Decrease over last quarter<br>Ventura -27.8% |
| | | Largest Magnitude Increase over one year ago<br>Ventura 12.2% | Largest Magnitude Increase over last quarter<br>Los Angeles 0.3% |
| Average Non-Holiday Weekday Equivalent Lost Lane Mile Hours at 35 mph |  | Largest Magnitude Decrease over one year ago<br>AM Peak -11.8% | Largest Magnitude Decrease over last quarter<br>PM Peak -3.3% |
| | | Largest Magnitude Increase over one year ago<br>– | Largest Magnitude Increase over last quarter<br>AM Peak 11.8% |
| Average Number of Good and Bad Detectors |  | Change in Good over one year ago<br>-26% | Change in Good over last quarter<br>-19% |
| | | Change in Bad over one year ago<br>12% | Change in Bad over last quarter<br>8% |

| Congestion by Route | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Vehicle Hours of Delay at 35 mph | | | Difference 2024 Q1-2023 Q1 | | Difference 2024 Q1-2023 Q4 | | Rank | | |
| Route | County | 2023 Q1 | 2023 Q4 | 2024 Q1 | Absolute | Percentage | Absolute | Percentage | 2023 Q1 | 2023 Q4 | 2024 Q1 |
| I405 | Los Angeles | 2,054,975 | 1,940,525 | 1,925,947 | -129,029 | -6.3% | -14,578 | -0.8% | 1 | 1 | 1 |
| I10 | Los Angeles | 1,050,673 | 1,232,559 | 1,257,416 | 206,743 | 19.7% | 24,857 | 2.0% | 3 | 2 | 2 |
| I5 | Los Angeles | 1,456,595 | 1,062,181 | 1,097,817 | -358,778 | -24.6% | 35,636 | 3.4% | 2 | 3 | 3 |
| I210 | Los Angeles | 757,090 | 903,997 | 886,566 | 129,476 | 17.1% | -17,431 | -1.9% | 5 | 4 | 4 |
| US101 | Los Angeles | 1,002,505 | 799,236 | 853,343 | -149,161 | -14.9% | 54,108 | 6.8% | 4 | 5 | 5 |
| SR60 | Los Angeles | 605,182 | 619,584 | 601,290 | -3,892 | -0.6% | -18,294 | -3.0% | 6 | 6 | 6 |
| I605 | Los Angeles | 505,863 | 576,108 | 552,677 | 46,814 | 9.3% | -23,431 | -4.1% | 8 | 7 | 7 |
| I110 | Los Angeles | 590,283 | 522,767 | 548,812 | -41,472 | -7.0% | 26,045 | 5.0% | 7 | 8 | 8 |
| I710 | Los Angeles | 452,346 | 343,902 | 318,523 | -133,823 | -29.6% | -25,379 | -7.4% | 9 | 9 | 9 |
| SR91 | Los Angeles | 354,763 | 262,116 | 241,464 | -113,299 | -31.9% | -20,652 | -7.9% | 10 | 10 | 10 |
| SR14 | Los Angeles | 264,197 | 176,353 | 186,468 | -77,729 | -29.4% | 10,116 | 5.7% | 11 | 11 | 11 |
| SR134 | Los Angeles | 198,213 | 143,919 | 155,029 | -43,184 | -21.8% | 11,110 | 7.7% | 12 | 12 | 12 |
| I105 | Los Angeles | 156,118 | 117,282 | 120,258 | -35,861 | -23.0% | 2,976 | 2.5% | 13 | 13 | 13 |
| SR57 | Los Angeles | 47,045 | 57,717 | 48,865 | 1,821 | 3.9% | -8,851 | -15.3% | 16 | 15 | 14 |
| SR118 | Los Angeles | 85,441 | 72,720 | 43,730 | -41,711 | -48.8% | -28,990 | -39.9% | 14 | 14 | 15 |
| SR23 | Ventura | 16,145 | 33,262 | 30,199 | 14,055 | 87.1% | -3,063 | -9.2% | 18 | 17 | 16 |
| US101 | Ventura | 39,100 | 46,476 | 29,842 | -9,259 | -23.7% | -16,634 | -35.8% | 17 | 16 | 17 |
| SR2 | Los Angeles | 15,614 | 0 | 18,936 | 3,322 | 21.3% | 18,936 | | 19 | | 18 |
| SR118 | Ventura | 13,644 | 29,304 | 17,655 | 4,011 | 29.4% | -11,649 | -39.8% | 20 | 18 | 19 |
| SR33 | Ventura | 3,309 | 3,167 | 3,309 | 0 | 0.0% | 141 | 4.5% | 21 | 19 | 20 |
| SR47 | Los Angeles | 1,626 | 2,209 | 1,312 | -314 | -19.3% | -898 | -40.6% | 22 | 20 | 21 |
| SR126 | Los Angeles | 972 | 375 | 1,188 | 215 | 22.2% | 813 | 216.8% | 24 | 22 | 22 |
| SR71 | Los Angeles | 1,223 | 1,624 | 840 | -384 | -31.4% | -784 | -48.3% | 23 | 21 | 23 |
| SR90 | Los Angeles | 189 | 110 | 0 | -188 | -99.8% | -110 | -99.6% | 25 | 23 | 24 |
| SR170 | Los Angeles | 72,474 | 0 | 0 | -72,474 | -100.0% | 0 | | 15 | | |
| **TOTALS** | | **9,745,584** | **8,947,490** | **8,941,484** | **-804,100** | **-8.3%** | **-6,006** | **-0.03%** | | | |